

REMARKS

Claims 1-19 are pending in the present patent application. Claims 1-17 stand rejected. This application continues to include claims 1-19.

The Examiner only addressed claims 1-17 in the present Office Action, although the present application includes claims 1-19. A review of the PAIR site confirmed that claims 18 and 19 were presented for consideration along with claims 1-17 in the Amendment in response to the Office Action mailed March 7, 2006. Applicants respectfully request the examination of claims 18 and 19.

The Examiner rejected claims 1-10 and 12-16 under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 6,925,844 (Liu). Applicants respectfully request reconsideration of the rejection of claims 1-10 and 12-16 in view of the following.

Applicants respectfully request that the Examiner clarify the basis for rejection of claims 1-10 and 12-16 under 35 U.S.C. § 102(a) with respect to Liu.

Under 35 U.S.C. 102(a), a person shall be entitled to a patent unless (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent. It is well established that "known or used" in the context of 35 U.S.C. § 102(a) means publicly known or used. "The statutory language 'known or used by others in this country' (35 U.S.C. § 102(a)), means knowledge or use which is accessible to the public." *Carella v. Starlight Archery*, 804 F.2d 135, 231 USPQ 644 (Fed. Cir. 1986). (See MPEP 2132).

Liu was filed January 30, 2003, but was not published until August 5, 2004, and issued August 9, 2005. Accordingly, the earliest public knowledge that can be derived from the Liu reference is August 5, 2004. In contrast, the patent application directed to the present

invention was filed on August 26, 2003. Accordingly, Liu is not a valid reference under 35 U.S.C. § 102(a).

Therefore, unless the Examiner can show some other public use or knowledge of the Liu invention beyond that of the Liu reference, the rejection of claims 1-10 and 12-16 under 35 U.S.C. § 102(a) is improper.

Accordingly, Applicants respectfully request that the rejection of claims 1-10 and 12-16 under 35 U.S.C. § 102(a) based on Liu be withdrawn.

Notwithstanding the above, claim 1 is directed to a lockset, and recites, “a lock mechanism having an aperture; an operator; and a turn-button mounted in said operator, said turn-button including: a head portion; and a shaft extending from said head portion, said shaft having a leading helical end portion that engages said aperture of said lock mechanism.” (Emphasis added).

In rejecting claim 1, the Examiner relies on the Liu lock 100 as corresponding to the recited “lock mechanism”, lock housing or shell 102 as corresponding to the recited “operator”, key core 110 as corresponding to the recited “aperture” of the lock mechanism, key 200 as corresponding to the recited “turn-button”, key blade portion 230 as corresponding to the recited “shaft”, and helical key blades 236 as corresponding to the recited “leading helical tip”.

However, the Patent and Trademark Office (“PTO”) determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction “in light of the specification as it would be interpreted by one of ordinary skill in the art.” *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364, 70 USPQ2d 1827 (Fed. Cir. 2004) (Emphasis added). Applicants’ Fig. 1 clearly shows, for

example, the structure referenced by element number 12 that Applicants refer to as a “turn-button”, i.e., turn-button 12. As stated in claim 1, the turn-button is mounted in the operator. The “operator” 16 is, e.g., a door knob or lever. (Applicants’ Fig. 1; specification at page 2, lines 22-23). As stated in Applicants’ specification at page 2, lines 26-27, a rotation of the head portion 20 of turn-button 12 by a user operates lock mechanism 14.

As a first point, the lock housing or shell 102 of Liu is not an operator, as recited in claim 1, as the lock housing or shell 102 is simply that, a housing, and not an operator that would operate something. As set forth in Liu, at column 4, lines 58-60, “The shell 102 may take various shapes, such as a cylinder lock shell, a mortise lock shell, a rim lock shell, etc.” However, in all the examples of Liu, the lock housing or shell 102 is a lock shell, and not some sort of operator.

In addition, claim 1 recites that the turn-button is mounted in the operator. However, the key 200 of Liu (asserted to be the turn-button) is not mounted in the lock housing or shell 102 of Liu (asserted to be an operator). Rather, the key 200 of Liu is received in keyways 112 of lock core 110 of Liu (see Liu column 4, lines 60-64) during operation without being mounted thereto.

Further, Applicants submit that the key 200 of Liu is not what is understood by one of ordinary skill in the art to be a turn-button (also spelled “turn button”), and also sometimes referred to as a turnpiece. For example, the present application, as well as each of U.S. Patents 4,631,944; 5,317,889; 5,335,950; 5,441,318; 6,598,440; and 6,745,602 shows and describes a turn button/turnpiece. The owners of these patents are variously Kwikset, Emhart or Newfrey LLC, who constitute a market share of about 60%. Accordingly, there is an extensive use of the terms turn-button/turnpiece in the art to refer to the particular item used in

a door handle assembly that is mounted in an operator (e.g., door knob) to actuate a lock mechanism. However, clearly a turn-button is not a key that would be received in a keyway. Thus, the key 200 of Liu is not a turn-button, as recited in claim 1.

In addition, the spiraling elements 236 of Liu, taken in context, do not constitute what one skilled in the art would consider as being a “shaft”, nor does Liu support such a contention. Rather, Liu describes the spiraling elements 236 as “helical key blades 236” that are received in helical keyways 112.

In view of the above, Applicants respectfully submit that Liu does not disclose, teach or suggest the subject matter of claim 1. Therefore, claim 1 is believed allowable in its present form.

Claim 2 depends from claim 1, and is believed allowable in view of its dependence on an otherwise allowable base claim. In addition, claim 2 is believed allowable in its own right.

Claim 2 recites, in part, “said leading helical end portion having a plurality of leading helical surfaces that taper and twist from a transition line of said shaft toward a tip end of said shaft.” (Emphasis added). In rejecting claim 2, the Examiner relies on Liu Fig. 3.

However, while the surfaces of helical key blades 236 spiral, the surfaces of helical key blades 236 do not taper from a transition line of the shaft. As is more evident by considering the shape of the keyways 112 depicted in Figs. 2A and 2B of Liu in relation to Fig. 3, the helical key blades 236 uniformly spiral around a central axis L and thus do not taper.

Further, in Liu the surfaces of helical key blades 236 do not twist from a transition line of said shaft, as recited in claim 2, since it is the helical key blades 236 themselves that are asserted by the Examiner to be the shaft, and thus do not define a transition line.

In view of the above, Applicants respectfully submit that Liu does not disclose, teach or suggest the subject matter of claim 2. Therefore, claim 2 is believed allowable in its own right.

Claim 3 depends from claim 2, and is believed allowable in view of its dependence on an otherwise allowable base claim 1 and/or claim 2. In addition, claim 3 is believed allowable in its own right.

Claim 3 recites, in part, “said plurality of leading helical surfaces smoothly transition between adjacent helical surfaces.” In rejecting claim 3, the Examiner relies on Liu Fig. 5. However, it is clear from Liu Fig. 5 that the surfaces of helical key blades 236 abruptly transition at essentially 90 degree angles resulting in a single line transition from one spiraling surface to the adjacent spiraling surface. Other embodiments in Liu (e.g., helical key blades 236”) have a round cross section, and thus have a single outer surface with no transition.

In view of the above, Applicants respectfully submit that Liu does not disclose, teach or suggest the subject matter of claim 3. Therefore, claim 3 is believed allowable in its own right.

Claim 4 recites, “A turn-button for a lockset, comprising: a head portion; and a shaft extending from said head portion, said shaft having a leading helical end tip.” Liu does not disclose a turn-button for a lockset, having a head portion and a shaft extending from said head portion, the shaft having a leading helical end tip, for reason set forth above with respect to claims 1 and 2.

In view of the above, Applicants respectfully submit that Liu does not disclose, teach or suggest the subject matter of claim 4. Therefore, claim 4 is believed allowable in its present form.

Claims 5 and 6 depend, directly or indirectly, from claim 4, and are believed to be allowable in view of their dependence from otherwise allowable base claim 4. In addition, claim 6 is believed to be allowable in view of its dependence from otherwise allowable

intervening claim 5. Further, claims 5 and 6 are believed allowable in their own right for substantially the same reasons set forth above with respect to claims 2 and 3, respectively.

Claim 7 recites, “A lockset comprising: a lock mechanism including an actuator having an aperture; an operator; a turn-button mounted in said operator, said turn-button including a shaft; and means for facilitating *self-alignment of said shaft of said turn-button with said aperture of said lock mechanism* as said shaft of said turn-button is inserted into said aperture of said lock mechanism.” (Emphasis added).

Applicants submit that Liu does not disclose, teach or suggest a turn-button as recited in claim 7 for substantially the same reasons set forth above with respect to claim 1.

In addition, Applicants submit that Liu does not provide means for facilitating self-alignment of a shaft of a turn-button with an aperture of a lock mechanism as the shaft of the turn-button is inserted into the aperture of the lock mechanism. In rejecting claim 7, reliance is placed by the Examiner on Liu column 7, lines 19-24, which state, “In an open-lock operation, the protrusion 216 of the key is firstly inserted into the positioning slot 114 provided in the center of the front end of the lock core 110 for positioning and facilitating insertion of the key. Each end of the helical key blade is then aligned with the entry of the keyway.” While the passage relied on by the Examiner has to do with alignment, Liu does not disclose, teach or suggest a means for *self-alignment* of the shaft, as recited in claim 7. In particular, Liu discloses using a secondary component (protrusion 216 of shank 210) for aligning the helical key blade portion 230 (which is asserted by the Examiner as corresponding to the recited “shaft”), and does not disclose, teach or suggest the self-alignment of helical key blade portion 230.

In view of the above, Applicants respectfully submit that Liu does not disclose, teach or suggest the subject matter of claim 7. Therefore, claim 7 is believed allowable in its present form.

Claim 8 is believed allowable in view of its dependence from otherwise allowable claim 1, and for reasons set forth above with respect to claim 1.

Claims 9 and 10 depend, directly or indirectly, from independent claim 7. Claims 9 and 10 are believed allowable in view of their dependence from otherwise allowable base claim 7. In addition, claim 10 is believed allowable in view of its dependence from otherwise allowable intervening claim 9.

In addition, claims 9 and 10 correspond generally to claims 2 and 3, respectively, and are believed allowable in their present form for substantially the same reasons set forth above with respect to claims 2 and 3.

Claims 12-16 depend, directly or indirectly, from independent claim 1. Claims 12-16 are believed allowable in view of their dependence from otherwise allowable base claim 1, and for reasons set forth above with respect to claim 1.

In view of the above, Applicant respectfully requests that the rejection of claims 1-10 and 12-16 under 35 U.S.C. 102(a) be withdrawn.

Claims 11 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Hurdle (US 842,834). Applicants respectfully request reconsideration of the rejection of claims 11 and 17 in view of the following.

Claim 11 recites, “The lockset of claim 1, wherein said operator is one of a door knob and a door lever, said shaft of said turn-button extending from said head portion through said one of said door knob and said door lever to engage said aperture of said lock mechanism.”

Also, claim 17 recites, “The lockset of claim 7, wherein said operator is one of a door knob

and a door lever, said shaft of said turn-button extending through said one of said door knob and said door lever to engage said aperture of said lock mechanism."

In rejecting claims 11 and 17, the Examiner asserts that claims 11 and 17 are obvious as a combination of the Liu lock cylinder having a helical keyway (112 in Liu) that is contained in the lock shell (102 in Liu) with the door knob of Hurdle. However, this combination is irrelevant to claims 11 and 17. Claims 11 and 17 recite with respect to respective base claims 1 and 7 that the operator is one of a door knob and a door lever, and it is the shaft of the turn-button that extends from the head portion of the turn-button through the door knob (or door lever) to engage the aperture of the lock mechanism. In particular, the Examiner designated key 200 of Liu as corresponding to the recited "turn-button", key blade portion 230 as corresponding to the recited "shaft", and helical key blades 236 as corresponding to the recited "leading helical tip". Thus, the Examiner's combination of the Liu lock cylinder with the Hurdle door knob does not made out a *prima facie* case of obviousness with respect to claims 11 and 17.

In addition, claim 11 depends from claim 1 and is believed allowable in view of its dependence from otherwise allowable base claim 1, since Hurdle does not remove the deficiencies of Liu with respect to claim 1.

Also, claim 17 depends from claim 7 and is believed allowable in view of its dependence from otherwise allowable base claim 7, since Hurdle does not remove the deficiencies of Liu with respect to claim 7.

In view of the above, Applicant respectfully requests that the rejection of claims 11 and 17 under 35 U.S.C. 103(a) be withdrawn.

For the foregoing reasons, Applicants believe the present application is in condition for allowance in its present form, and it is respectfully requested that the Examiner so find and issue a Notice of Allowance in due course.

In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby conditionally petition therefor and authorize that any charges be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (317) 894-0801.

Respectfully submitted,



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